

CLAIMS

What is claimed is:

1. A method of determining proximity of a user (11) having a first electronic device (12) to a second electronic device (14) for allowing the user (11)

5 access to the second electronic device (14), said method comprising the steps of:

transmitting data (44) in a plurality of signals at different frequencies (f1, f2, f3) to establish communication between the first electronic device (12) and the second electronic device (14);

10 detecting the plurality of signals at the different frequencies with the first electronic device (12);

measuring a signal strength for each of a predetermined number of the detected plurality of signals at the different frequencies (f1, f2, f3);

15 said method characterized by determining an overall signal strength from the predetermined number of measured signal strengths and comparing the overall signal strength to a predetermined threshold for enabling the second electronic device (14) in response to the overall signal strength being above the predetermined threshold.

2. A method as set forth in claim 1 wherein the step of determining the
20 overall signal strength is further defined as averaging the signal strength measurements for the predetermined number of detected signals to establish the overall signal strength.

3. A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

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4. A method as set forth in claim 1 wherein the step of determining the overall signal strength is further defined as converting each of the signal strength measurements for each of the predetermined number of detected signals to logarithmic values and averaging the logarithmic values of all the predetermined number of detected signals to establish the overall signal strength.

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5. A method as set forth in claim 1 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

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6. A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

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7. A method as set forth in claim 5 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

8. A method as set forth in claim 1 further including the step of transmitting the overall signal strength from the first electronic device (12) to the second electronic device (14) for comparing to the predetermined threshold and enabling the second electronic device (14) in response to the signal strength being
5 above the predetermined threshold.

9. A method as set forth in claim 1 further including the step of transmitting a strength code from the first electronic device (12) to the second electronic device (14) in response to the overall signal strength being above the
10 predetermined threshold and enabling the second electronic device (14) upon detecting the strength code.

10. A method as set forth in claim 1 wherein the step of transmitting the data (44) in the plurality of signals is further defined as partitioning the data (44)
15 stored within the second electronic device (14) into a plurality of data blocks (48), (50), (52) for transmittance of the data blocks (48), (50), (52) over wireless connections to the first electronic device (12).

11. A method as set forth in claim 10 wherein the step of transmitting the
20 data (44) in the plurality of signals is further defined as spreading the plurality of data blocks (48), (50), (52) over a plurality of radio frequencies such that each of the data blocks (48), (50), (52) is transmitted at a different frequency for secure transmission between the first electronic device (12) and the second electronic device (14).

12. A method as set forth in claim 11 wherein the step of transmitting the data (44) in the plurality of signals is further defined as modulating the plurality of data blocks (48), (50), (52) at the plurality of radio frequencies to establish a plurality of signals.

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13. A method as set forth in claim 11 further including the step of scanning the predetermined number of detected signals during a time interval and determining the overall signal strength from the measured signal strengths during the time interval.

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14. A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as isolating the detected signal having the maximum measured signal strength from all the predetermined number of detected signals to establish the overall signal strength.

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15. A method as set forth in claim 13 wherein the determining of the overall signal strength is further defined as averaging the signal strength measurements measured during the time interval to establish the overall signal strength.

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16. A method as set forth in claim 15 further including the step of transmitting the overall signal strength from the first electronic device (12) to the second electronic device (14) for comparing to the predetermined threshold and

enabling the second electronic device (14) in response to the signal strength being above the predetermined threshold.

17. A method as set forth in claim 15 further including the step of
- 5 transmitting a strength code from the first electronic device (12) to the second electronic device (14) in response to the overall signal strength being above the predetermined threshold and enabling the second electronic device (14) upon detecting the strength code.

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